KNOWN GOOD DIE REMOVAL METHOD AND APPARATUS

ABSTRACT OF THE DISCLOSURE

A method and apparatus for separating a chip from substrate where the chip is attached to the substrate by solder connections to form an assembly involve applying a loading force to drive a coil spring biased shearing element comprising a slide block with carrying a shearing blade into a loading position. Load the assembly of the substrate and the chip into a fixture with a window therethrough for the chip with the shearing blade in contact with the chip. Remove the loading force to arm the shearing blade to apply a shearing force from the shearing blade to the chip. Heat the solder connections of the assembly in the fixture to a predetermined temperature, preferably below the melting temperature of the solder at which shearing of the solder connections occurs. The shearing blade comprises a slidable plastic blade backed up by a metal blade. The shearing blades are affixed to a the slide block that is connected by a linkage to a coil spring which applies the biasing force thereto and which provides a nest for catching a chip which has been sheared away from a substrate.